IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF TEXAS MARSHALL DIVISION

SPORTSCASTR INC. (d/b/a PANDA INTERACTIVE),

Plaintiff,

v.

SPORTRADAR GROUP, AG, and SPORTRADAR AG,

Defendants.

SPORTSCASTR INC. (d/b/a PANDA INTERACTIVE),

Plaintiff,

v.

GENIUS SPORTS LTD.,
GENIUS SPORTS MEDIA LTD.,
GENIUS SPORTS TECHNOLOGIES LTD.,
GENIUS SPORTS UK LTD.,
GENIUS SPORTS HOLDINGS LTD.,
GENIUS SPORTS GROUP LTD.;
MAVEN TOPCO LTD.,
MAVEN MIDCO LTD.,
MAVEN DEBTCO LTD., and
MAVEN BIDCO LTD.

Defendants.

Civil Action No. 2:23-cv-00472-JRG

Civil Action No. 2:23-cv-00471-JRG

JURY TRIAL DEMANDED

DEFENDANTS' RESPONSIVE CLAIM CONSTRUCTION BRIEF

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1	SportsCastr Inc. (d/b/a PANDA Interactive) v. Genius Sports Ltd., No. 23-cv-471-JRG (E.D. Tex.), Plaintiff's Responses and Objections to Defendant's First Set of Interrogatories (5/29/2024)		
2	Genius Sports Ltd. v. SportsCastr Inc. d/b/a PANDA Interactive, IPR2024-01305, Paper 7 (PTAB Dec. 19, 2024)		
3	Genius Sports Ltd. v. SportsCastr Inc. d/b/a PANDA Interactive, IPR2024-01307, Paper 7 (PTAB Dec. 19, 2024)		
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5	Genius Sports Ltd. v. SportsCastr Inc. d/b/a PANDA Interactive, IPR2024-01309, Paper 8 (PTAB Dec. 10, 2024)		
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7	Genius Sports Ltd. v. SportsCastr Inc. d/b/a PANDA Interactive, IPR2024-01311, Paper 7 (PTAB Dec. 20, 2024)		
8	Genius Sports Ltd. v. SportsCastr Inc. d/b/a PANDA Interactive, IPR2025-00251, Paper 7 (PTAB Mar 28, 2025)		
9	Genius Sports Ltd. v. SportsCastr Inc. d/b/a PANDA Interactive, IPR2025-00252, Paper 7 (PTAB Mar. 28, 2025)		
10	Glossary, Dictionary.com, https://www.dictionary.com/browse/glossary (last visited Apr. 4, 2025)		
11	SportsCastr Inc. v. Sportradar Group, AG, Civil Action No. 2:23-cv-00472-JRG (E.D. Tex.), Plaintiff's Supplemental Responses and Objections to Defendant's Interrogatories (Nos. 4, 6, 19) (1/15/2025)		

TABLE OF ABBREVIATIONS

Abbreviation	Description
471 Compl.	SportsCastr Inc. (d/b/a PANDA Interactive) v. Genius Sports Ltd., No. 23-cv-471-JRG (E.D. Tex.), Dkt. 1
471 FAC SportsCastr Inc. (d/b/a PANDA Interactive) v. Genius Sports Ltd cv-471-JRG (E.D. Tex.), Dkt. 43	
471 SAC	SportsCastr Inc. (d/b/a PANDA Interactive) v. Genius Sports Ltd., No. 23-cv-471-JRG (E.D. Tex.), Dkt. 56
471 Pl. First R&O	SportsCastr Inc. (d/b/a PANDA Interactive) v. Genius Sports Ltd., No. 23-cv-471-JRG (E.D. Tex.), Plaintiff's Responses and Objections to Defendant's First Set of Interrogatories (5/29/2024) (Ex. 1)
472 Compl.	SportsCastr Inc. (d/b/a PANDA Interactive) v. Sportradar Group AG, No. 23-cv-472-JRG (E.D. Tex.), Dkt. 1
472 FAC	SportsCastr Inc. (d/b/a PANDA Interactive) v. Sportradar Group AG, No. 23-cv-472-JRG (E.D. Tex.), Dkt. 17
472 SAC	SportsCastr Inc. (d/b/a PANDA Interactive) v. Sportradar Group AG, No. 23-cv-472-JRG (E.D. Tex.), Dkt. 126
472 TAC	SportsCastr Inc. (d/b/a PANDA Interactive) v. Sportradar Group AG, No. 23-cv-472-JRG (E.D. Tex.), Dkt. 127
1305 POPR	Genius Sports Ltd. v. SportsCastr Inc. d/b/a PANDA Interactive, IPR2024-01305, Paper 7 (PTAB Dec. 19, 2024) (Ex. 2)
1307 POPR	Genius Sports Ltd. v. SportsCastr Inc. d/b/a PANDA Interactive, IPR2024-01307, Paper 7 (PTAB Dec. 19, 2024) (Ex. 3)
1308 POPR	Genius Sports Ltd. v. SportsCastr Inc. d/b/a PANDA Interactive, IPR2024-01308, Paper 8 (PTAB Dec. 10, 2024) (Ex. 4)
1309 POPR	Genius Sports Ltd. v. SportsCastr Inc. d/b/a PANDA Interactive, IPR2024-01309, Paper 8 (PTAB Dec. 10, 2024) (Ex. 5)
1310 POPR	Genius Sports Ltd. v. SportsCastr Inc. d/b/a PANDA Interactive, IPR2024-01310, Paper 7 (PTAB Dec. 20, 2024) (Ex. 6)
1311 POPR	Genius Sports Ltd. v. SportsCastr Inc. d/b/a PANDA Interactive, IPR2024-01311, Paper 7 (PTAB Dec. 20, 2024) (Ex. 7)
0251 POPR	Genius Sports Ltd. v. SportsCastr Inc. d/b/a PANDA Interactive, IPR2025-00251, Paper 7 (PTAB Mar 28, 2025) (Ex. 8)

Abbreviation	Description	
0252 POPR	Genius Sports Ltd. v. SportsCastr Inc. d/b/a PANDA Interactive, IPR2025-00252, Paper 7 (PTAB Mar. 28, 2025) (Ex. 9)	
Br.	PANDA's Opening Claim Construction Brief, Dkt. 149.	
IPR	Inter Partes Review	
POSA	Person of ordinary skill in the art	
PTAB	Patent Trial and Appeal Board	
Shamos	Markman Declaration of Michael Shamos, Ph.D., Dkt. 149-1	
'697	United States Patent No. 10,425,697	
'687	United States Patent No. 10,805,687	
'218	United States Patent No. 11,039,218	
'088	United States Patent No. 11,871,088	
VCD	Viewer client device	

TABLE OF DISPUTED TERMS

No.	Claim Language	PANDA's Construction	Defendants' Construction
13, 271	"event socket of [the] at least one socket server" ('697: 1, 2, 4–6, 9, 13, 14, 19–25; 687: 1, 2, 4, 5, 7, 9, 13, 14, 19–25; 218: 1, 3, 12, 16) "socket of a socket server" ('088: 1, 8, 13, 24)	"socket through which event information can be sent in a synchronized manner to multiple client devices"	"a socket dedicated to a particular event"
26	"live stream of digital content" / "stream of digital content" ('697: 1–3, 5, 6, 10–17, 19, 21–24, 26–28, 30) ('687: 1–3, 5–7, 10–17, 19, 21–23, 26, 27, 30) ('218: 12, 14–16, 18)	plain and ordinary meaning / no construction required	"digital video and/or audio transferred between at least two network-connected devices in real-time or essentially real-time as created/provided by a broadcaster"
25	"broadcaster" ('697: 1–3, 5, 6, 10–17, 19, 21–24, 26–28, 30) ('687: 12)	plain and ordinary meaning / no construction required	"a registered user (a user that provides profile information and validation credentials to establish a user account so as to access, via a login process using the validation credentials, the one or more of the various servers and corresponding server functionality), that creates/provides video and/or audio (also referred to herein in some instances as "video-based commentary") for consumption by one or

¹ To streamline the parties' disputes and because the claims recite the terms "event socket" or "socket" of a "socket server" as a combined phrase, Defendants no longer contend that "socket server" requires a separate construction.

No.	Claim Language	PANDA's Construction	Defendants'
			Construction
1 11	D 11		more viewers"
1-11	Preambles ('697: 1, 19, 23, 27) ('687: 1, 19, 23, 27) ('218: 1, 12, 16) "event information"	not limiting "information about a	Limiting plain and ordinary
	('697: 1, 3, 4, 6, 7, 13, 19, 20, 22, 23, 27) ('687: 1–4, 7, 9, 19, 20, 22, 23, 25, 27, 29; 218: 1, 3, 4, 6, 7, 11–13, 16, 20, 30) ('088 1, 5–8, 11–13, 15–27, 29–34)	particular event, including but not limited to one or more of team information (e.g., team names, abbreviations and/or logos), score information (e.g., with essentially real-time score updates synchronized with the video-based commentary), player information, venue information, game status information (e.g., on-base, at-bat, timeouts, fouls, pole position, yards-to-go, yards-to-goal, down), team statistics, player statistics, alerts, trivia, polls, news, broadcaster and/or viewer messages, and/or advertising associated with or relevant to the event, a participant in the event, a date/time of the event"	meaning/no construction required
16	"means for transmitting the first score information to at least the first viewer client device via a first event information communication channel	Subject to § 112(f); not indefinite Function: transmitting the first score information to at least the first viewer	Subject to § 112(f); indefinite

No.	Claim Language	PANDA's Construction	Defendants'
	1 1 100 10	11 . 1	Construction
	that is different from the first video communication channel" ('697: 27)	client device via a first event information communication channel that is different from the first video communication channel.	
		Structure: a socket of a socket server that implements the algorithms described in FIGs. 2, 3, 21A-21E, and accompanying disclosures, including 5:29-44; 9:16-10:43; 19:64-20:61; 21:37-22:67; 23:20-45; 26:50-27:27; 29:25-43; 46:61-47:11; 51:27-49; 53:21-37 of the '697 Patent, and equivalents thereof.	
17	"means for transmitting the first event information to at least the first viewer client device via a first event information communication channel that is different from the first video communication channel" ('687: 27)	Subject to § 112(f); not indefinite. Function: transmitting the first event information to at least the first viewer client device via a first event information communication channel that is different from the first video communication channel. Structure: a socket of a	Subject to § 112(f); indefinite
		socket server that implements the algorithms described in FIGs. 2, 3, 21A-21E, and accompanying disclosures, including 5:29-44; 9:16-10:43; 19:64-20:61; 21:37-22:67; 23:20-45; 26:50-	

No.	Claim Language	PANDA's Construction	Defendants'
			Construction
		27:27; 29:25-43; 46:61-	
		47:11; 51:27-49; 53:21-37	
		of the '697 Patent, and	
		equivalents thereof.	
18	"means for providing the	Subject to § 112(f); not	Subject to § 112(f);
	first copy to the first	indefinite	indefinite
	viewer client device via a		
	first video communication	<u>Functions:</u> providing the	
	channel"	first copy to the first	
		viewer client device via a	
	('697: 27, 30)	first video communication	
	(1607, 27, 22)	channel.	
	('687: 27, 30)		
		Structure: a media source	
		that implements one or	
		more of the algorithms	
		described in the	
		corresponding portions of	
		FIGs. 2, 3, 4A-4B, 5A-	
		5C, 6, 7, 8, 9A-9D, 11,	
		and 12, and	
		accompanying	
		disclosures, including	
		9:16-10:43; 15:30-58;	
		18:7-19; 19:7-37; 21:21-	
		36; 25:46-26:18; 27:30-	
		52; 28:5-40; 30:54-31:22;	
		31:23-32:21; 32:22-	
		38:46; 39:34-40:61; and	
		41:10-44:35 of the '697	
		Patent, and equivalents	
10		thereof	a 11
19	"means for periodically	Subject to § 112(f); not	Subject to § 112(f);
	retrieving, via the Internet	indefinite	indefinite
	and from an event		
	information provider, first	<u>Functions:</u> periodically	
	event information	retrieving, via the Internet	
	germane to a first live	and from an event	
	sporting event"	information provider, first	
	(2607, 27)	event information	
	('697: 27)	germane to a first live	
		sporting event.	
		Structure: a control server	
		Structure. a control server	

No.	Claim Language	PANDA's Construction	Defendants '
			Construction
		that implements one or	
		more of the algorithms	
		described in the	
		corresponding portions of	
		FIGs. 2, 3, 15, and 16A-	
		16B, and accompanying	
		disclosures, including	
		9:16-10:43; 14:64-15:29;	
		17:24-45; 19:38-63;	
		21:37-52; 24:6-37; 27:5-	
		27; 45:20-48:8 of the '697	
		Patent, and equivalents	
20	(6 C	thereof.	0-1:44- 0 110/0
20	"means for retrieving, via	Subject to § 112(f); not	Subject to § 112(f);
	the Internet, first event	indefinite	indefinite
	information germane to a	Eunation, natriavina via	
	first live sporting event"	Function: retrieving, via	
	('687: 27)	the Internet, first event information germane to a	
	(007.27)	first live sporting event.	
		mst five sporting event.	
		Structure: a control server	
		that implements one or	
		more of the algorithms	
		described in the	
		corresponding portions of	
		FIGs. 2, 3, 15, and 16A-	
		16B, and accompanying	
		disclosures, including	
		9:16-10:43; 14:64-15:29;	
		17:24-45; 19:38-63;	
		21:37-52; 24:6-37; 27:5-	
		27; 45:20-48:8 of the '697	
		Patent, and equivalents	
21	"manna for transmitting	thereof.	Subject to \$ 112(A.
21	"means for transmitting	Subject to § 112(f); not indefinite	Subject to § 112(f); indefinite
	and receiving first chat information regarding the	machine	macimite
	first live sporting event	Function: transmitting	
	via at least one first	and receiving first chat	
	chat/system event Internet	information regarding the	
	communication channel	first live sporting event	
	that is different from the	via at least one first	
	first video communication	chat/system event Internet	
	Inst video communication	chai/system event internet	

No.	Claim Language	PANDA's Construction	Defendants'
			Construction
	channel and the first event information channel" ('687: 28)	communication channel that is different from the first video communication channel and the first event information channel.	
		Structure: a socket of a socket server that implements one or more of the algorithms described in the corresponding portions of FIGs. 2, 3, 21A-21E, 22A-22B, 23A-23B, 24A-24B, and 25A-25C, and accompanying disclosures, including 5:29-44; 9:16-58; 19:64-20:61; 22:7-67; 23:46-24:5; 26:50-27:27; 29:44-30:29; 51:27-52:3; 52:47-62;52:63-54:11 of the '697 Patent, and equivalents thereof	
22	"means for transmitting and receiving first chat information regarding the first live sporting event video-based commentary included in the first broadcaster's live stream of digital content via at least one first chat/system event Internet communication channel that is different from the first video communication channel and the first event information communication channel" ('697: 28)	Subject to § 112(f); not indefinite Function: transmitting and receiving first chat information regarding the first live sporting event video-based commentary included in the first broadcaster's live stream of digital content via at least one first chat/system event Internet communication channel that is different from the first video communication channel and the first event information communication channel	Subject to § 112(f); indefinite

No.	Claim Language	PANDA's Construction	Defendants'
No. 23	"means for updating the first score information and queueing an asynchronous message including the updated first score information for transmission on the first event information communication channel" ('697: 29)	Structure: a socket of a socket server that implements one or more of the algorithms described in the corresponding portions of FIGs. 2, 3, 21A-21E, 22A-22B, 23A-23B, 24A-24B, and 25A-25C, and accompanying disclosures, including 5:29-44; 9:16-58; 19:64-20:61; 22:7-67; 23:46-24:5; 26:50-27:27; 29:44-30:29; 51:27-52:3; 52:47-62; 52:63-54:11 of the '697 Patent, and equivalents thereof Subject to § 112(f) Function: updating the first score information and queueing an asynchronous message including the updated first score information for transmission on the first event information communication channel. Structure: a control server	Defendants' Construction Subject to § 112(f); indefinite
		that implements one or more of the algorithms described in the corresponding portions of	
		FIGs. 2, 3, 10, 16A-16B, 17A-17B, and 22A-22B, and accompanying disclosures, including 24:6-37; 47:41-48:53; 52:47-62 of the '697	
		Patent, and equivalents thereof.	

No.	Claim Language	PANDA's Construction	Defendants'
			Construction
24	"means for updating the first event information and queuing an asynchronous message including the updated first	Subject to § 112(f); not indefinite Functions: updating the first event information	Subject to § 112(f); indefinite
	event information for transmission on the first event information communication channel."	and queueing an asynchronous message including the updated first event information for	
	('687: 29)	transmission on the first event information communication channel.	
		Structure: a control server that implements one or more of the algorithms described in the corresponding portions of FIGs. 2, 3, 10, 16A-16B, 17A-17B, and 22A-22B, and accompanying disclosures, including 24:6-37; 47:41-48:53; 52:47-62 of the '697	
34	"such that the online	Patent, and equivalents thereof Not indefinite; plain and	Indefinite
34	gaming information is shared in a synchronized manner by the first viewer client device and the second viewer client device"	ordinary meaning	indefinite
	('218: 4)		
35	"the at least one socket server transmits the changes in the online gaming information to the first viewer client device and the second viewer client device via the first event socket to provide a single synchronized	Not indefinite; plain and ordinary meaning	Indefinite

No.	Claim Language	PANDA's Construction	Defendants' Construction
	update and mitigate client-by-client latency and/or synchronization issues" ('218: 7)		Construction
37	"the first digital content received at the first client device and the second client device is synchronized and client-by-client latency between the first client device and second client device to render the first event information is thereby mitigated or significantly reduced" ('088: 1, 8)	Not indefinite; plain and ordinary meaning.	Indefinite
32	"germane" ('697: 1, 19, 23, 27) ('687: 1, 19, 23, 27) ('218: 1, 4, 12, 16)	Not indefinite; plain and ordinary meaning	Indefinite
38 & 39	"the at least one first display of the first client device" ('088: 13) ('088: 24)	Not indefinite; plain and ordinary meaning	Indefinite
40	"wherein the second instructions transmitted by the webserver to the second media server endpoint to receive, on a fourth communication channel between the first media server endpoint	Not indefinite; plain and ordinary meaning	Indefinite

No.	Claim Language	PANDA's Construction	Defendants' Construction
	and the third client device, the first copy o the composite outgoing stream" ('088: 31)		

TABLE OF ADDITIONAL PROPOSED AGREED CONSTRUCTIONS

To streamline the disputes for the Court to resolve, Defendants are willing to agree to the following constructions (in addition to those set forth in the parties' P.R. 4-3 Joint Claim Construction and Prehearing Statement, Dkt. 124):

No.	Claim Language	Proposed Agreed Construction
12	"socket" ('697: 1, 2, 4–6, 9, 13, 14, 19–25) ('687: 1, 2, 4, 5, 7, 9, 13, 14, 19–25) ('218: 1–5, 7, 10, 12, 13, 15, 16, 19, 20) ('088: 1, 4, 5, 8, 13, 18, 24, 28–30)	Plain and ordinary meaning, which is an "endpoint for network communications." ²
15	"transmit at least the first score information the at least some of the first event information to the first viewer client device of the first plurality of viewer client devices via a third Internet communication channel between at least one first event socket of the at least one socket server and the first viewer client device of the first plurality of viewer devices" ('697: 19)	"transmit at least the first score information of the at least some of the first event information to the first viewer client device of the first plurality of viewer client devices via a third Internet communication channel between at least one first event socket of the at least one socket server and the first viewer client device of the first plurality of viewer devices"
30	"persistent connection" ('697: 16, 17)	Plain and ordinary meaning, which is a "connection to a client that remains open after a server sends a response." ³

² This definition applies to disputed terms 13 and 27.

³ PANDA offered the definition of "persistent connection" for the first time in its opening brief. Br. 13 (citing Br. Ex. 16). Defendants do not view PANDA's definition as meaningfully different

No.	Claim Language	Proposed Agreed Construction
1100	('687: 16, 17)	1 1 oposed 11g1 eeu consti uction
	('218: 3, 20, 24)	
31	"online gaming	Plain and ordinary meaning, which is "information
	information"	used for, or relevant to, gaming conducted over the
	(2219, 1, 2, 4, 6, 7, 12, 16	Internet." ⁴
	('218: 1, 3–4, 6–7, 12, 16, 21, 23, 25, 27, 29)	
	21, 23, 23, 27, 29)	
	('088: 6, 11, 16, 22, 26,	
	33)	
28	"the plurality of media	Not indefinite; plain and ordinary meaning
	sources comprises: at least	
	one of: at least one real-	
	time messaging protocol	
	(RTMP) media server;	
	and at least one web real	
	time communication (WebRTC) media server	
	"	
	('697: 10, 17, 26)	
20	('687: 10, 17, 26)	
29	"requests only the first	Not indefinite; plain and ordinary meaning
	HLS file suite" / "no other HLS file suite"	
	other HLS me suite	
	('697:15, 17)	
	(0) / 112, 17)	
	('687: 15, 17)	
33	"first broadcaster client	Not indefinite; plain and ordinary meaning
	device" / "second	
	broadcaster client device"	
	(2607, 12)	
	('697: 12)	
	('687: 12)	
36	"digital content	Not indefinite; plain and ordinary meaning
	corresponding to the first	
	event information"	
	('088: 1, 5, 8, 13, 18, 24,	
	29, 30)	

from their proposed construction and are therefore willing to agree to PANDA's definition. ⁴ PANDA likewise offered this definition for the first time in its opening brief. Br. 14.

I. INTRODUCTION

PANDA asserts four patents it alleges relate to "live video streaming" and "synchronized event information." 472 TAC ¶¶3–4. Defendants respectfully submit that each disputed term should either be given a construction reflecting the alleged novelty that distinguishes PANDA's claimed inventions over the prior art, or be held indefinite. PANDA's proposals, however, deviate from the intrinsic record or fail to provide the reasonable certainty required by law.

II. LEVEL OF ORDINARY SKILL IN THE ART

A POSA at the time of the alleged inventions would have held at least a bachelor's degree in electrical engineering, computer engineering, or a related field. A POSA would also have a basic understanding of and at least four years' experience with researching, designing, implementing, or testing live streaming technology. Additional education would compensate for less experience, and vice versa. Any differences between the parties' proposed level of skill are irrelevant to the resolution of any disputed terms.

III. ARGUMENT

A. Terms 13 & 27: "event socket" / "socket" of a "socket server"

There are two disputes regarding these terms: whether an event socket: (1) is dedicated to transmitting event information for a particular event (Defendants' position) or may transmit event information for multiple events (PANDA's position); and (2) does not require synchronization (Defendants' position) or requires transmitting event information "in a synchronized manner" (PANDA's position). Defendants' construction is supported by the intrinsic record; PANDA's construction rewrites the claims and contradicts the specification.

1. Event Sockets Are Dedicated to Particular Events

Defendants' construction is drawn verbatim from the common specification, '687, 22:62–63 ("particular *sockets* of the socket server(s)" are "*dedicated to a particular event*"), whereas

PANDA's construction is invented from whole cloth and fails to account for the allegedly novel aspects of the event sockets.⁵ As explained below, the intrinsic record and PANDA's own representations confirm that event sockets are dedicated to particular events, *i.e.*, each event socket transmits score or event information for a single event to all viewers of that event.

As an initial matter, the parties agree that "event socket" is not a term of art, Br. 5; Shamos ¶116, and therefore the Court must look to the intrinsic record to understand its meaning. See Goldenberg v. Cytogen Inc., 373 F.3d 1158, 1164 (Fed. Cir. 2004). Absent an accepted meaning in the art, "event socket" must be construed "only as broadly as provided for by the patent itself." Irdeto Access, Inc. v. Echostar Satellite Corp., 383 F.3d 1295, 1300 (Fed. Cir. 2004). Further, the Court need not find clear disclaimer for a term such as event socket that "lacks an accepted meaning in the art." Id., 1300, 1303. In addition, a patent owner's statements in IPRs are relevant to determining the scope of a term. Aylus Networks Inc. v. Apple Inc., 856 F.3d 1353, 1362 (Fed. Cir. 2017). Here, the intrinsic record and PANDA's arguments in related IPR proceedings demonstrate that "event sockets" are dedicated to particular events.

First, the claims alone confirm Defendants' construction. The Federal Circuit has instructed that patent claims themselves provide "substantial guidance" as to the meaning of terms, and the context in which terms are used can be "highly instructive." Phillips v. AWH Corp., 415 F.3d 1303, 1314 (Fed. Cir. 2005). Here, each claim reciting a socket server expressly associates separate event sockets with event information for specific events. For example, one set of claims recites a first event socket of the socket server that transmits score or event information for a first sporting event and a second event socket that transmits score or event information for

⁵ For simplicity, Defendants' will refer to an "event socket of [the] at least one socket server" ('697, '687, and '218) and a "socket of a socket server" ('088) as an "event socket." PANDA suggests that the claims differentiate between event sockets and sockets of a socket server, Br. 8, but elsewhere PANDA has treated these terms as identical in scope. Ex. 11.

a *second* sporting event. '697, cl. 19; '687, cl. 19. Even in claims reciting only one event socket, that "*first* event socket" expressly "*corresponds to* the *first* event information germane to the *first* live sporting event" or is only used to transmit "*first* online gaming information germane to the *first* sporting event." '697, cl. 1, 23; '687, cl. 1, 23; '218, cl. 1, 12, 16. Similarly, the '088's use of a "socket of a socket server" uniformly associates each socket with transmission of data for a specified live event. '088, cl. 1, 8, 13, 24. Indeed, no claim recites a single socket that transmits or is associated with event information for multiple live events.

Further, where claims recite different pluralities of VCDs that receive video for different events, each plurality receives score or event information from the event socket that corresponds to the particular event being viewed. That is, the *first* plurality of VCDs receiving video of a *first* live sporting event receives score or event information for that event from a *first* event socket, whereas the *second* plurality of VCDs receiving video of a *second* event receives score or event information for that event from a *second* event socket. '697, cl. 1, 19, 23; '687, cl. 1, 19. The Asserted Patents include no claims where *different* pluralities of VCDs receiving video for *different* sporting events receive event information from the *same* event socket.

Second, the common specification⁶ confirms that event sockets of the allegedly novel socket server are "dedicated to" particular events: both "inventive" systems in the specification's summary comprise a "socket server" that transmits score or event information to VCDs. '697, 9:16–10:43. In the first such system, "first score information" for a "first live sporting event" is transmitted to VCDs in a first plurality from a "first event socket" that "corresponds to the first event information germane to the first live sporting event." *Id.*, 9:41–58. The second system adds a "second event socket" for transmitting "second score information" for a "second live sporting

⁶ The specification is "the single best guide" to term's meaning. *Phillips*, 415 F.3d, 1315.

event" to VCDs in a second plurality. *Id.*, 10:16–43. In other words, the first event socket is dedicated to a first event and the second event socket is dedicated to a second event.

The detailed description is consistent: "socket server(s) [] establish one or more *first* event sockets [] dedicated to the first event information and one or more second event sockets [] dedicated to the second event information." '697, 21:48–52; see also id. 22:62–63 ("particular sockets of the socket server(s)" are "dedicated to a particular event"), 20:5–11 ("sockets of the socket server(s) dedicated to the particular event" allow event information to be shared with all viewers "following the particular event"), 27:19–27 ("all viewers" of a particular event are coupled to "sockets dedicated to the event"), 47:3–11 (same). The specification provides no example of an event socket dedicated to more than one event.

That the Asserted Patents repeatedly and uniformly describe event sockets dedicated to particular events as part of the "inventive" server architecture serves to bound the scope of the alleged invention. *See Regents of Univ. of Minn. v. AGA Med.*, 717 F.3d 929, 936 (Fed. Cir. 2013) (scope of invention limited to features described as part of the invention as a whole); *Honeywell Int'l v. ITT Indus.*, 452 F.3d 1312, 1317–19 (Fed. Cir. 2006) (same). Indeed, even absent "any statements of explicit disavowal or words of manifest exclusion," a specification may implicitly limit a term by "repeatedly, consistently, and exclusively us[ing]" the term in a certain way, as the Asserted Patents do here with "event socket." *Irdeto*, 383 F.3d, 1303.

Third, PANDA has consistently claimed—in this case and in IPR proceedings—that a socket server with event sockets dedicated to particular events is fundamental to the claimed invention and distinguishes its invention over the prior art. From the outset of this case, PANDA claimed its patented technologies "employ a *novel* socket server architecture, in which a socket is *dedicated to* a particular live stream." 471 Compl. ¶11; 472 Compl. ¶11; 471 FAC ¶11; 472

FAC ¶11.7 Moreover, according to PANDA, having "one socket of a socket server dedicated to a particular event" represents a "novel and specific technological improvement over the prior art." 471 Compl. ¶46. In its opening claim construction brief, PANDA reaffirmed its argument that the "patented technologies improve computer network functionality by facilitating scalable and appreciably low-latency viewing of data streams and event information by using separate channels for the streaming and event information and a one-to-many socket architecture." Br. 2. PANDA also relies on dedicated sockets as among the secondary considerations that it contends support the non-obviousness of the Asserted Patents. Ex. 1, 32–33.

PANDA has been even more explicit before the PTAB. For example, PANDA argued in support of its requests that the PTAB deny institution of Genius Sports' IPR petitions that its "patented technologies" employ a socket server that "transmits the event information associated with the *particular event* back to the viewers ... through the *dedicated socket*." 1308 POPR, 63–64. As a result, "all event viewers ... may receive synchronized information from the *same event socket dedicated to that event*." 1308 POPR, 8–9.9 According to PANDA, that "solves a technical challenge of providing the same event information" to "all viewers" of a broadcast by using a "socket architecture" where "all viewers of the broadcast may receive the *same*

⁷ In complaints filed after PANDA and Genius Sports first exchanged claim construction positions, PANDA altered this language to say that the socket "may be" dedicated to a particular live stream or event, 471 SAC ¶¶11, 12, but elsewhere continued to claim that having one socket dedicated to a particular event is part of the novelty of the claimed inventions. *Id.* ¶¶80, 81, 86. In complaints filed post-consolidation, PANDA then shifted its description to state that each socket is dedicated "to at least one live event." 472 SAC ¶12; *see also* 472 TAC ¶12 (same). PANDA's complaints nonetheless repeatedly refer to the sockets of the allegedly novel socket server as being "dedicated" to particular events. *E.g.*, 471 Compl. ¶¶11, 12, 46, 47, 52; 472 Compl. ¶11, 12, 46, 47, 52; 471 FAC ¶¶11, 12, 47, 48, 53; 472 FAC ¶¶11, 12, 53, 54, 59; 471 SAC ¶¶80, 81, 86; 472 SAC ¶¶12, 13, 67, 68, 73; 472 TAC ¶¶12, 13, 95, 96, 101.

⁸ See also 1305 POPR, 63; 1307 POPR, 63–64; 1309 POPR, 63–64.

⁹ See also 1305 POPR, 7; 1307 POPR, 7; 1309 POPR, 7; 1310 POPR, 6; 1311 POPR, 6; 0251 POPR, 18–20; 0252 POPR, 18–20.

synchronized information via the *same* event socket." 1308 POPR, 9.¹⁰ *See Aylus Networks*, 856 F.3d, 1362–64 (finding that patent owner narrowed claim scope based on statements in IPR that a certain feature was a "key aspect of the claimed invention" and solved specific problems).

PANDA's assertions that the Asserted Patents claim a "one-to-many socket architecture," which PANDA repeatedly describes as "novel" and "technologically improved" over conventional techniques, ¹¹ further support Defendants' construction. Unlike traditional socket architectures, which PANDA claims required each user "to connect to their own unique socket," the event sockets of the Asserted Patents use a "one-to-many" architecture, *i.e.*, *one* event socket dedicated to a particular event to which *many* VCDs connect to enable them to receive event information for a particular event. ¹² Put simply, the main innovation PANDA claims drives the latency and synchronization improvements of its patented technologies is substituting sockets dedicated to individual users with sockets dedicated to particular events. Accordingly, Defendants' construction, which incorporates that alleged novelty, should be adopted.

PANDA's construction—which is silent as to whether event sockets transmit event information for a single event or multiple events—fails to reflect what the intrinsic record and PANDA's own statements confirm is the meaning, and an essential feature of, "event sockets," namely that each event socket is dedicated to a particular event. In particular, PANDA's construction requires only that unspecified "event information" is sent through an event socket,

 $^{^{10}\ \}textit{See also}\ 1305\ \mathsf{POPR},\ 7;\ 1307\ \mathsf{POPR},\ 7;\ 1309\ \mathsf{POPR},\ 7;\ 1310\ \mathsf{POPR},\ 7;\ 1311\ \mathsf{POPR},\ 7.$

¹¹ See, e.g., 471 Compl. ¶¶11, 46, 49, 56; 472 Compl. ¶¶11, 46, 49, 56; 471 FAC ¶¶11, 47, 50, 57; 472 FAC ¶¶11, 53, 56, 63; 471 SAC ¶¶11, 80, 83, 90; 472 SAC ¶¶12, 67, 70, 77; 472 TAC ¶¶12, 95, 98, 105; 1305 POPR, 1, 6, 63; 1307 POPR, 1, 6, 63–64; 1308 POPR, 1, 8, 63–64; 1309 POPR, 1, 6, 63–64; 1310 POPR, 1, 6, 74–75; 1311 POPR, 1, 5–6, 72.

¹² See 471 Compl. ¶¶10, 11, 46, 49, 56; 472 Compl. ¶¶10, 11, 46, 49, 56; 471 FAC ¶¶10, 11, 47, 50, 57; 472 FAC ¶¶10, 11, 53, 56, 63; 471 SAC ¶¶10, 11, 80, 83, 90; 472 SAC ¶¶11, 12, 67, 70, 77; 472 TAC ¶¶11. 12, 95, 98, 105; 1305 POPR, 1, 6, 63; 1307 POPR, 1, 6, 63–64; 1308 POPR, 1, 8, 63–64; 1309 POPR, 1, 6, 63–64; 1310 POPR, 1, 6, 74–75; 1311 POPR, 1, 5–6, 72.

without specifying that the event information relates to a particular event. As explained above, however, PANDA alleges the fundamental distinction of event sockets over prior art sockets is multiple viewers' ability to connect to a single event socket dedicated to a particular event. And unlike Defendants' construction, which adopts verbatim language from the specification, PANDA's proposed language appears nowhere in the intrinsic record.

PANDA's arguments in support of its construction on this point do not pass muster.¹³

First, PANDA contends that an event socket can be dedicated to more than one event, and therefore Defendants' construction reads out embodiments disclosed in the specification. PANDA is incorrect: the specification contains no disclosure whatsoever of "two separate event information channels within the same socket," as PANDA asserts. Br. 6.¹⁴ Rather, every description involving multiple events uses a separate socket for each channel dedicated to the event. See '697, 10:30–43 (the "first" event socket transmits score information for a first sporting event via a "third" channel and the "second" event socket transmits score information for a second sporting event via a "fourth" channel), 21:65–22:6 (same principle). Moreover, the disclosure of "one or more sockets of a socket server that is/are dedicated to the event" does not support PANDA's construction. Br. 6 (emphasis in original) (quoting '218, 27:8–13). The specification is clear that, should the socket server establish more than one socket per event, each event socket is nonetheless dedicated to a single event, not multiple events as PANDA suggests. See '697, 21:48–52 ("first event sockets" are "dedicated to first event information" whereas

¹³ As a preliminary issue, PANDA incorrectly asserts that Defendants' construction contradicts positions taken in IPR proceedings. Not so. As PANDA acknowledges, Genius Sports stated in its IPR petitions that a "first event socket corresponding to the first event information germane to the first live sporting event is a socket where information about one sporting event is provided," Br. 5, which is consistent with Defendants' construction here.

¹⁴ Moreover, the Asserted Patents do not expressly describe any "embodiments," let alone a "preferred embodiment." Rather, the specification uniformly refers to a single "inventive server and memory storage architecture" shown in Figures 2 and 3. *E.g.*, '697, 3:4–34.

"second event sockets" are "dedicated to second event information"). 15

Indeed, the portions of the specification PANDA cites flatly contradict its interpretation. The specification expressly states that the one or more event sockets are dedicated to "the event" such that "all live streams relating to the event" are synchronized. '218, 27:8–13; see also id., 27:37–44 (all viewers of "the event" are coupled to sockets dedicated to "the event"), 47:20–24 (same). Contrary to PANDA's theory, each event socket is dedicated to one event.

Second, PANDA argues that "event information channels" are dedicated to particular events but "event sockets" need not be. Br. 6–7. This is also incorrect. As explained above, every event socket is dedicated to a particular event. Where an "event information channel" is dedicated to a particular event, that is only because the channel is used by an event socket dedicated to the same event. '697, 10:30–43, 21:65–22:6. PANDA's claim that the specification contemplates event sockets dedicated to more than one event is also contradicted by PANDA's cited disclosures, in which both channels carry event information for the *same* sporting event. '218, 23:38–63. Thus, although the specification discloses two channels from one event socket, each channel transmits event information for the *same* event. 16

In support of its position, PANDA also cites (but does not explain) its expert's assertion that event information channels could be "separately and uniquely addressed by the 'EventId' [sic] that corresponds to each separate event." Shamos ¶118. That is clearly wrong based on the very disclosures Dr. Shamos cites, which describe first and second EventIDs that correspond

¹⁵ PANDA's expert repeats this same error and relies on the same disclosures. Shamos ¶117.

¹⁶ PANDA's expert mistakenly contends that an event socket can be dedicated to more than one event based on the same disclosures. Shamos ¶118. He also, confusingly and without any support, claims that an "event information channel" is a "subset of, rather than coextensive with" an "event socket." *Id.* Defendants do not assert that event information channels and event sockets are the same, and the specification is clear that event sockets transmit event information via event information channels. *See, e.g.*, '697, 10:30–43, 21:65–22:6.

respectively to the first and second event *sockets* (not channels), and which the VCDs use to connect to separate event sockets. '218, 22:5–17. Nowhere does the specification describe or suggest using EventIDs to address channels instead of sockets, let alone channels that relate to the same socket. Dr. Shamos' mistaken reading of the specification should be ignored.

In sum, PANDA clearly and repeatedly described an event socket as being dedicated a to particular event. PANDA cannot now repudiate this clear description of the purported invention. *See Honeywell*, 452 F.3d, 1318 (when specification describes "the invention" as being limited in a certain way, "[t]he public is entitled to take the patentee at his word").

2. Event Sockets Are Not Limited to Transmitting Event Information in a Synchronized Manner

PANDA's construction imports a new limitation—that event information "can be sent in a synchronized manner to multiple client devices"—found nowhere in the specification. PANDA argues this language is consistent with the "purpose of the claimed inventions," Br. 7, but cites nothing in the intrinsic record demonstrating that event sockets are responsible for transmitting event information to multiple client devices "in a synchronized manner." At best, the portions of the specification PANDA relies on show that VCDs receive the *same* information, but are silent as to whether event information must be synchronized (and if so, whether event sockets are responsible for doing so). *See* '218, 20:24–30.¹⁷ Moreover, PANDA relies on disclosures relating to synchronizing event information with *video*, not synchronizing event information for multiple VCDs. *Id.*, 26:39–56, 27:1–12. PANDA's construction also introduces ambiguity and would render the claims indefinite because the specification provides no objective guidance enabling a POSA to determine whether event information has been shared in a synchronized manner, as

¹⁷ PANDA's construction is also improper because it renders claim language in the Asserted Patents superfluous. *See* '218, cl. 4 (information is "shared in a synchronized manner" by two VCDs); *Digital-Vending Servs. Int'l v. Univ. of Phoenix*, 672 F.3d 1270, 1275 (Fed. Cir. 2012); *Mformation Techs. v. Rsch. in Mot.*, 764 F.3d 1392, 1399 (Fed. Cir. 2014).

described below with respect to the synchronization terms. See § III.E.2, infra.

B. Glossary Terms

A patentee acts as its own lexicographer when it sets forth an "explicit definition" for a term. *Jack Guttman Inc. v. Kopykake Enters.*, 302 F.3d 1352, 1360 (Fed. Cir. 2002). When a patent "clearly define[s]" a term, that definition is "dispositive." *Id.* PANDA defined terms in the Asserted Patents' Glossary; the Court should hold PANDA to those express definitions.

1. Term 26: "live stream of digital content" / "stream of digital content"

The parties dispute whether this term requires video and/or audio. Defendants contend the intrinsic record and PANDA's representations make clear the invention requires transmitting audiovisual information. In arguing the term more broadly includes non-audiovisual data, PANDA contradicts the intrinsic record and even its own statements about the invention.

First, the Asserted Patents' Glossary expressly defines "Live Stream" as "Digital content (e.g. digital video and/or digital audio) that is transferred between at least two network-connected devices in real-time or essentially real time as the corresponding video and/or audio codified as the digital content is created/provided by a broadcaster." 697, 8:22–30. That definition is clear that "digital content" must be "video and/or audio." Defendants' construction is based on this definition and is fully supported by the specification. Id., 8:30–55. As the patentee acted as its own lexicographer, PANDA is bound by its definitions.

Second, the Glossary definition is consistent with the claims, which require the streamed media to be audiovisual. See '697, cl. 1 (provided "via a first video Internet communication channel"), 19 (copies include "broadcaster's live stream of digital content including first videobased commentary"), 20 ("third video Internet communication channel"), 23 ("first video communication channel"), 27 (same); '687 cl. 1, 20, 23, 27 (same as '697); '218 cl. 12 ("first video communication channel"), 16 (same). Moreover, the media is streamed to viewer client

devices, and the Glossary defines viewer as a consumer of "video and/or audio created/provided by a broadcaster." '697, 8:16–21, cl. 1. Likewise, the specification consistently distinguishes between channels for video and non-audiovisual data. *See, e.g.*, '697, 5:36–44 ("a first 'video' Internet communication channel ... conveys the digital content ... and a second 'event information' Internet communication channel ... conveys the event information"); *see also id.* 2:65–3:34, 7:44–47, 8:16–47, 9:16–10:43, 11:9–12, 24:61–25:33, 25:35–27:27, Figs. 1A–B, 2.

Third, PANDA has consistently claimed—in this case and in IPR proceedings—that live video streaming is fundamental to PANDA's claimed invention. PANDA's complaints explicitly and consistently refer to live streams as tantamount to video, stating that its invention "revolutionized" the field of "live video streaming," which PANDA admits is also commonly referred to as "livestreaming or simply streaming." 471 Compl. ¶¶2-3; see also id. ¶¶1 ("PANDA developed ... revolutionary Internet technology for the delivery of broadcasts"), 9 ("[PANDA's] patented technologies use a novel socket server ... with online streaming *video*."); 471 SAC ¶1-3, 9. Moreover, according to PANDA, the "Asserted Patents provide a novel and specific technological improvement over the prior art by ... performing live video streaming" that is sent to viewers who are interested in watching "the live stream." 471 Compl. ¶¶46–47 (noting that event information is separate from a video channel); 471 SAC ¶¶79–83 (claiming that the Asserted Patents improve "conventional video streaming systems"). 18 PANDA's representations to the PTAB—that digital content streams are separate and different from data feeds—contradict their proposed construction. See, e.g., 1310 POPR, 1, 3, 64. PANDA also relies on enhancing video streaming as a secondary consideration that it contends support the non-obviousness of the Asserted Patents. Ex. 1, 31–33.

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¹⁸ See also 1305 POPR, 63; 1307 POPR, 63–64; 1308 POPR, 63–64; 1309 POPR, 63–64.

PANDA's arguments miss the mark. Br. 12–13. First, PANDA argues that "digital content" could also be a "live ticker, closed captioning, [or] real-time text." Br. 12 (citing '697, 13:25–27). But the specification does not use the term "digital content" to describe non-audiovisual content. In fact, the specification differentiates media content (which may be non-audiovisual) and digital content, which is uniformly audiovisual. '697, 11:9–13, 13:25–27.

Second, PANDA attempts to override the Glossary definition by contending that the specification describes live streams without a "broadcaster" And as a live stream replay. Br. 12. But the generalized description of live streaming PANDA cites does not override the specification's express description of the broadcaster's role in providing live streams. ¹⁹ '697, 13:16–35. Further, PANDA's citation to a "live stream *replay* method" also confirms the "live stream" was previously "live." Br. 12 (citing '697, 12:51–53, 3:18–21). ²⁰

2. Term 25: "broadcaster"

Defendants' construction is taken directly from the express definition in the "Glossary" of the Asserted Patents. ²¹ See, e.g., '697, 7:44–47; Contentguard Holdings, v. Amazon.com, 2:13-CV-1112-JRG, 2015 WL 8073722, at *7 (E.D. Tex. Dec. 4, 2015) ("by setting forth an explicit definition in a 'Glossary,' the patentee act[s] as [a] lexicographer."). PANDA initially attempts to overcome this unequivocal act of lexicography by contending that a definition in a Glossary is not "definitional." Br. 10. This defies both logic and the meaning of the term Glossary. Contentguard, 2015 WL 8073722, at *7; see also Ex. 10 ("glossary" is "a list of terms ... with accompanying definitions"). Indeed, in Contentguard this Court found that a "Glossary"

¹⁹ PANDA's reliance on *Baxalta Inc. v. Genentech, Inc.*, is misplaced, because the *Baxalata* patents did not include a Glossary. 972 F.3d 1341 (Fed. Cir. 2020).

²⁰ PANDA also complains that the term as defined by its own Glossary would "confuse" the jury, Br. 13, but that is a problem of its own making.

Defendants' construction also incorporates the patentees' definition of "Registered User" which is incorporated into the definition for "Broadcaster." See, e.g., '697, 7:36–40.

definition of "repository" controlled. 2015 WL 8073722, at *7. PANDA is bound to the explicit, unqualified, definition that the patentees ascribed to the term "broadcaster." *E.g.*, '697, 7:36–47.

PANDA also seeks to obviate the patentees' binding definition based on a single reference in the specification to "user profiles for broadcasters and viewers," contending the phrase equates "broadcasters" with "anonymous viewers," which PANDA claims alters the patentees' explicit definition. Br. 11 (citing '697, 32:50–54). Not so. PANDA ignores that the specification discusses separate "user profiles for broadcasters and viewers." Indeed, the patentee's own Glossary distinguishes between "Broadcasters" and "Viewer[s]," providing distinct definitions for each. '697, 7:44–47, 8:16–21. The phrase PANDA relies on is therefore consistent with and does not alter the explicit Glossary definitions. See '697, 32:50–54.

PANDA's other arguments similarly fail. The patentee's explicit definition cannot be overridden by extrinsic dictionary evidence. Br. 9; *Vitronics*, 90 F.3d at 1584 (extrinsic evidence may not be used to "contradict the import of other parts of the specification"). And PANDA's contention that Defendants' construction is "litigation driven," Br. 10, is beside the point as it is the patentee's *exact* definition.²²

C. Terms 1–11: Preambles

The preambles of claims 1, 19, 23, and 27 of the '687 and '697 and claims 1, 12, and 16 of the '218 are limiting. The Federal Circuit has set clear "guideposts" for determining when a preamble limits the scope of a claim, including when it "recites essential structure" or "provides antecedent basis for a claim limitation." SIMO Holdings Inc. v. Hong Kong uCloudlink Network Tech. Ltd., 983 F.3d 1367, 1375 (Fed. Cir. 2021); Deere & Co. v. Bush Hog LLC, 703 F.3d 1349, 1357–58 (Fed. Cir. 2012); see also Core Wireless Licensing S.A.R.L. v. LG Elecs., 2015

²² If the Court finds that including the definition of "registered user" in "broadcaster" is too wordy, Defendants do not object to separately defining those terms, and "user" and "viewer".

WL 6956722, at *15 (E.D. Tex. Nov. 9, 2015) (preambles are limiting where they "recite essential structure or steps" or are "necessary to give life, meaning, and vitality' to the claim"). The preambles here meet both guideposts and are therefore limiting.

First, the preambles of the independent claims uniquely recite numerous elements not found anywhere in the body of the claims, such as the requirement that the first and second "pluralit[ies] of copies" referenced in multiple limitations are copies of a first or second "live stream of digital content" or "broadcaster's live stream of digital content." '697, cl. 1, 19, 23, 27; '687, cl. 1, 19, 23, 27. Similarly, the preambles are the only source of the requirement that the digital content includes first or second "live sporting event video-based commentary" or that such content relates to a first or second live sporting event. Id.; '218, cl. 1, 12, 16. These requirements are not included in the body of the claims, and the preamble is thus necessary to "give life, meaning, and vitality" to the claims. Eaton Corp. v. Rockwell Int'l, 323 F.3d 1332, 1339 (Fed. Cir. 2003). Because the preamble provides essential structure—rather than merely indicating an intended use or purpose—it is limiting. See SIMO Holdings, 983 F.3d at 1375; Bio-Rad Labs. Inc. v. 10X Genomics Inc., 967 F.3d 1353, 1369 (Fed. Cir. 2020); Negotiated Data Sols. LLC v. Dell Inc., 596 F. Supp. 2d 949, 982 (E.D. Tex. 2009). Indeed, without elements such as digital content relating to different sporting events, the body of the claims do not describe a structurally complete system or operable method.

Second, the preambles provide antecedent basis for elements used throughout the body of the claims, such as a first and a second "plurality of copies," a first and a second "broadcaster's live stream of digital content" (or "live stream of digital content," or "digital content"), a first and a second "broadcaster client device," a first and a second "plurality of viewer client devices," and a first and a second "live sporting event." '697, cl. 1, 19, 23, 27; '687, cl. 1, 19,

23, 27; '218, cl. 1, 12, 16. The '218 Patent preambles further recite, and thus provide antecedent basis for, the terms "event information" and "online gaming information" used throughout the body of the claims. Because those limitations "rely upon and derive antecedent basis from" the preambles, they are "a necessary component of the claimed invention." *Eaton Corp.*, 323 F.3d at 1339. Indeed, terms in the body of the claims (such as the first and second "plurality of copies") cannot be understood without the preambles' antecedent reference to what such copies comprise or relate to, which makes the preamble limiting. *See Pacing Techs. LLC v. Garmin Int'l Inc.*, 778 F.3d 1021, 1024 (Fed. Cir. 2015) (preambles limiting where they "provide antecedent basis for and are necessary to understand positive limitations in the body of claims"); *Whirlpool Corp. v. TST Water LLC*, 2016 WL 3959811, at *7 (E.D. Tex. July 22, 2016) (same principle).

PANDA's arguments in support of holding the preambles non-limiting do not withstand scrutiny. PANDA does not dispute that certain terms are only present in the preambles, nor that the preambles provide antecedent basis for terms in the body of the claims. Instead, PANDA contends that each preamble recites "only an intended use of any otherwise structurally complete invention." Br. 17–18. This is wrong: as explained above, the complete relationship between broadcasters, viewers, live streams or digital content, and events is *only* recited in the preambles, and PANDA's claimed invention is expressly described as "facilitating ... synchronization of displayed event information with multiple broadcasters' live streams of video-based commentary about an event." '697, 5:10–13; *see Bell Commc'ns Rsch. v. Vitalink Commc'ns*, 55 F.3d 615, 620 (Fed. Cir. 1995) (Where patentee "chooses to use *both* the preamble and the body to define the subject matter of the claimed invention, the invention so defined, and not some other, is the one the patent protects."). PANDA also wrongly states that the preambles do not recite "structural components" of the claimed methods or systems "at all."

Br. 17–18. As explained above, however, the preambles recite such structural elements as the broadcaster and viewer client devices that transmit and receive live streams and event information, which is the core of the invention.

PANDA also argues that the preambles' requirements that first and second live stream of digital content relates to a first or second live sporting event and/or a first or second broadcaster client device merely state a "purpose or intended use." Not so. As explained above, the alleged invention is a system enabling transmission of live streams from different broadcasters relating to different events. '697, 5:10–13. PANDA's request to read these requirements out of the claims should be rejected.²⁴

D. Term 14: "event information"

The parties dispute whether "event information" should be accorded its plain and ordinary meaning (Defendants' position) or whether the jury would "benefit from a clarifying explanation illustrating the full scope of the term" (PANDA's position). Br. 8. Because the meaning of "event information" is clear from the claims and written description and the patentee did not act as its own lexicographer or disayow claim scope, no construction is needed.

Claim terms are "generally given their ordinary and customary meaning as understood by a person of ordinary skill in the art when read in the context of the specification and prosecution history." *Thorner v. Sony Comp. Entn't*, 669 F.3d 1362, 1365 (Fed. Cir. 2012). A patentee may

²³ PANDA does not address the other requirements exclusive to the preambles—including that the first and second pluralities of copies include different live streams of digital content, or that certain digital content includes first or second "live sporting event video-based commentary"—which are clearly not statements of purpose or intended use. *Eaton*, 323 F.3d at 1340.

²⁴ PANDA incorrectly suggests preambles reciting a system or method "for" performing a task are automatically non-limiting. Br. 17–18. But the Federal Circuit has found preambles limiting despite being phrased in the same way. *E.g.*, *Bell Commc'ns*, 55 F.3d at 621 (holding a "method for transmitting..." limiting). PANDA also wrongly states that preambles are "presumed to be non-limiting." Br. 16. The law contains no such presumption. *Deere & Co.*, 703 F.3d at 1357 ("Whether to treat a preamble as a limitation is 'determined on the facts of each case'.").

override this presumption by acting as its own lexicographer or disclaiming claim scope in the specification or during prosecution. *Id.* To act as its own lexicographer, the patentee must "clearly set forth a definition" other than the plain meaning. *Id.* The disclaimer must be clear and unambiguous. *Cont'l Cirs. v. Intel Corp.*, 915 F.3d 788, 798 (Fed. Cir. 2019).

Notably, PANDA does not argue that it engaged in lexicography or disclaimer. Br. 8–9. Nor could it: the intrinsic record contains no evidence that the patentee intended to limit the meaning of event information. Indeed, the portions of the specification PANDA relies on are expressly non-limiting examples. *See, e.g.*, '697, 4:48–55 ("event information *may include, but is not limited to* ... team information (*e.g.*, team names ...)"). The inquiry should end there. Instead, PANDA asks the Court to add a "clarifying explanation" where the meaning of "event information" is clear and PANDA's construction would rewrite the claims.

First, there is no need to clarify the meaning of "event information" for the jury by incorporating non-limiting examples into the Court's construction of that term. Of note, the claims themselves provide ample guidance as to what "event information" is or must include, *i.e.*, it must relate to a sporting event or include "score information" or "online gaming information" for such an event. '697, cl. 1, 19, 23, 27; '687, cl. 1, 19, 23, 27; '218, cl. 1, 12, 16; '088, cl. 1, 8, 13, 24. PANDA's numerous examples are unnecessary.²⁵

Second, PANDA's construction improperly combines examples of "event information" with those of a separate term, "real-time data," which the specification makes clear is different than event information. The specification states that in "**some** implementations," multimedia is integrated with "real-time data (**e.g.**, 'event information')." '697, 13:66–14:2. In other words,

²⁵ PANDA's reliance on *Eon Corp. v. Silver Spring Networks Inc.* is inapposite. Br. 9. There, the Federal Circuit found plain-meaning construction inadequate for terms with "more than one ordinary meaning." 815 F.3d 1314, 1319–20 (Fed. Cir. 2016). Here, neither party contends that

"event information" has more than one potential plain and ordinary meaning.

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event information is an example of real-time data, but not all real-time data is event information. For example, real-time data includes "trivia" and "polls," but event information does not. *Id.* 4:48–55, 14:5.²⁶ To shoehorn examples of real-time data into its construction of event information, PANDA argues that "the specification provides components of 'event information' while discussing 'real-time data." Br. 8–9 (citing '697, 14:1). But this blatantly mischaracterizes the specification, which is clear that event information is *one* example of real-time data, whereas the examples PANDA cites (e.g., alerts, trivia, polls) are of "*JoJther real-time data*" that are not event information. '697, 14:4–8. Accordingly, PANDA's construction should be rejected.

E. Indefinite Terms

Defendants contend the terms described below are indefinite. As an initial matter, PANDA argues that Defendants cannot meet their burden to demonstrate that a term is indefinite because Defendants did not submit expert testimony. Br. 21–30. That is not the law. *See Arthrex, Inc. v. Smith & Nephew, Inc.*, No. 2:15-cv-1047, 2016 WL 4211504, *42–43 (E.D. Tex. Aug. 10, 2016) (finding term indefinite without expert testimony). Nor should PANDA's expert's declaration, which merely provides conclusory testimony, be given any weight. *Phillips*, 415 F.3d, 1318; *Horizon Pharma Inc. v. Dr. Reddy's Labs.*, 839 F. App'x. 400, 504-05 (Fed. Cir. 2021) (affirming indefiniteness where expert offered only "conclusory statements" concerning POSA's supposed understanding). PANDA also argues that the claims are definite because Defendants applied prior art against the claims in IPR petitions. Br. 22, 30.²⁷ But a petitioner's

²⁶ Certain dependent claims of the '218, which recite "real-time information" in addition to "event information," further support the conclusion that the Asserted Patents distinguish between event information and other types of real-time data or information. *See Seachange Int'l v. C-COR Inc.*, 413 F.3d 1361, 1369 (Fed. Cir. 2005) ("different words or phrases used in separate claims ... indicate that the claims have different meanings and scope").

²⁷ PANDA cites to the '687 IPR, which does not pertain to any of these terms. Br. 22 (citing Br. Ex. 19). PANDA also ignores that Defendants' IPR petitions explicitly reserved the right to challenge these terms in this litigation as indefinite. Br. Ex. 18, pp. 8-9 n.5.; Ex. 6, 6-7 n.5; Ex. 9,

"representations made during IPR are not applicable here because a petitioner may not challenge claims on the basis of indefiniteness during IPR." *Cellular Commc'ns v. LG Elecs.*, No. 14-cv-982, 2016 WL 2808887, at *9 (E.D. Tex. May 13, 2016) (citing 35 U.S.C. § 311(b)); *Intellectual Ventures I v. AT&T Mobility*, 2016 WL 4363485, *9 n.8 (D. Del. Aug. 12, 2016). As explained below, the following terms are indefinite.

1. Terms 16–24: Means-Plus-Function Terms

Section 112 allows patentees to draft claim limitations that recite a function to be performed without reciting any structure for performing that function. See 35 U.S.C. § 112(f). In exchange, however, the patentee must include "structure" corresponding to the claimed function in the specification itself. Williamson v. Citrix Online LLC, 792 F.3d 1339, 1347 (Fed. Cir. 2015). There is no dispute that PANDA engaged in functional claiming here. JCCS, Ex. A, 14–22. Accordingly, it must be determined "what structure, if any, disclosed in the specification corresponds to the claimed function." Williamson, 792 F.3d at 1351. While the Asserted Patents' common specification repeats high-level functional descriptions, it does not describe adequate corresponding structure for performing those functions. As a result, PANDA has failed to meet its end of the bargain: it sought to benefit from broad, functional claiming, but did not comply with its statutory obligation to disclose the specific structure necessary to perform those functions. The means-plus-function (MPF) claims are therefore indefinite.

a. Transmitting Means (Terms 16–17)

Claim 27 of the '697 and claim 27 of the '687 both recite systems comprising a "means for transmitting" either first "score information" or "event information" to at least a first VCD (collectively, the "transmitting means"). ²⁸ PANDA contends the transmitting means performs the

⁸⁻⁹ n.5.

²⁸ Score information is an example of event information. '697, 4:47–50. PANDA's specified

function recited by the claim, *i.e.*, "transmitting the first [event/score] information to at least the first viewer client device via a first event information communication channel that is different from the first video communication channel," and the corresponding structure is "a socket of a socket server that implements one or more of the algorithms described in" certain portions of the specification "and equivalents thereof." Br. 19.

The transmitting means terms are computer-implemented MPF limitations, and as such the Asserted Patents must disclose "more than simply a general-purpose computer or microprocessor"; instead, the specification must "disclose an algorithm for performing the claimed function." *Noah Sys., Inc. v. Intuit Inc.*, 675 F.3d 1302, 1312 (Fed. Cir. 2012); *see also In re Katz Interactive Call Processing Pat. Litig.*, 639 F.3d 1303, 1313–15 (Fed. Cir. 2011) (upholding finding of indefiniteness where specification "disclosed only general purpose processors and did not disclose the algorithms that those processors used to perform the recited functions"). This serves to "prevent purely functional claiming," because "general-purpose computers can be programmed to perform very different tasks in very different ways." *Noah*, 675 F.3d at 1318. The required algorithm must provide a "step-by-step procedure" for performing the claimed function. *Triton Tech. of Texas v. Nintendo of Am.*, 753 F.3d 1375, 1378–79 (Fed. Cir. 2014). That "known techniques or methods can be used does not disclose structure." *Id.* at 1379.

Here, the "socket of a socket server" PANDA identifies as the corresponding structure can be implemented with a general-purpose computer. '697, 54:39–45 (servers described in the specification can be implemented using software "executed on any suitable processor or collection of processors"), 54:54–56:3 (describing various generic software and programming techniques). Accordingly, to comply with § 112(f), the common specification itself must disclose

function and proposed structure for both terms are identical, except for the substitution of "event information" for "score information" to mirror the claim language. Br. 19.

an algorithm for performing the claimed function. *Noah*, 675 F.3d at 1312.

But no such algorithm appears in the common specification. Instead, the specification simply repeats the same function in largely identical language without providing any detail as to how the claimed function is to be performed. E.g., '697, 5:42-44 (an "event information' Internet communication channel (e.g., between a particular socket of a socket server and the client device" is used to "convey[] event information")). "[P]urely functional language, which simply restates the function associated with the [MPF] limitation, is insufficient to provide the required corresponding structure." Noah, 675 F.3d at 1312; see also Cypress Lake Software Inc. v. Samsung Elecs., 382 F. Supp. 3d 586, 617-18 (E.D. Tex. 2019) (MPF term indefinite where, despite patentee's citation to "large portions of the specification," the specification "merely provides functional language"). Despite PANDA's superficially extensive citations to the alleged corresponding structure, the specification generically reiterates the function of the "socket server," namely to transmit "first score information" to "at least the first viewer client device ... via a first event information Internet communication channel ... between at least one first event socket ... and the first viewer client device." '697, 9:47-55; see also id. 10:19-43, 21:65-22:6, 23:34–42. At best, the specification discloses that VCDs connect to a socket and receive event information (as event messages in the form of "data packets including various event information") via an event information channel. *Id.* 20:7–8, 20:55–59, 26:51–55, 29:27–30, 53:25-29. But these boilerplate recitations merely describe exemplary functions without providing any detailed algorithm that would allow a POSA to program a general-purpose computer to accomplish those functions. Noah, 675 F.3d at 1312 (disclosing software "without providing some detail about the means to accomplish the function" does not satisfy § 112(f)); Cypress Lake, 382 F. Supp. 3d at 617–18 (no structure in specification where "cited passages are

'hardly more than a restatement of the ... function itself'").

PANDA's citation to certain Figures fares no better. Br. 19. Figures 2 and 3 only illustrate high-level block diagrams of various servers and contain no additional detail beyond the functional descriptions in the specification. Figure 2 at most illustrates high-level connections between the "Socket Server(s)" and VCDs, while Figure 3 does not depict interaction between sockets and a VCD at all (let alone transmission of score or event information). *See Blackboard, Inc. v. Desire2Learn*, 574 F.3d 1371, 1383 (Fed. Cir. 2009) (element that "is essentially a black box that performs a recited function" insufficient as it could be "any computer-related device or program that performs the function"); *Uniloc USA v. Samsung Elecs.*, No. 17-cv-651-JRG, 2018 WL 5296046, at *16–17 (E.D. Tex. Oct. 24, 2018) (block diagram including "step calculation logic" failed to "set[] forth any sequence of steps" sufficient to provide corresponding structure). Figures 21A–E, moreover, relate to functions other than transmitting score or event information to a VCD and, as explained below, therefore cannot provide adequate structure.

PANDA's citation to disclosures unrelated to the function of transmitting score or event information to a VCD also cannot render the transmitting means definite. *Noah*, 675 F.3d at 1316–17 (disregarding disclosures unrelated to the claimed function). Numerous disclosures relate to structures PANDA does not contend correspond to the claimed function, such as "media sources," '697, 9:16–41, 9:59–10:15, 22:53–60; a "control server," *id.* 9:42–46, 9:16–21, 21:37–38, 27:5–27, 46:61–47:11; and a "web server," *id.* 21:53–59, 23:20–29. PANDA also cites descriptions of functions unrelated to transmitting score or event information, such as a chat function or other "user-interactive features," *id.* 20:12–44, 22:7–39, 22:64–67, 29:25–43, 53:21–37; or related to broadcaster devices, not VCDs, *id.* 22:40–52, 51:27–49, Figs. 21A–E. Indeed, PANDA identifies a "media source" or a "control server" as the corresponding structure for

several other MPF terms, and "transmitting and receiving ... chat information" as the function for other terms. JCCS, Ex. A, 16–22. Accordingly, PANDA's "efforts to find structure in the portion of a specification linked to a *different* claim element ... does not allow it to 'avoid providing [the] specificity as to structure' required" by § 112(f). *Noah*, 675 F.3d at 1317.

PANDA asserts, without analysis, that its cited figures and disclosures "describe in detail how the socket server transmits/receives various types of event information" to VCDs. Br. 19–20. As explained above, however, those cited disclosures merely restate the functional language of the claims themselves, and do not contain any step-by-step "algorithms" for performing the claimed function, as PANDA contends. *Cypress Lake*, 382 F. Supp. 3d at 617–18.²⁹ Accordingly, the transmitting means lack corresponding structure and should be found indefinite.

b. Other Means-Plus-Function Terms (Terms 18–24)

Defendants contend that each MPF term is indefinite for the same reasons as the transmitting means, discussed above. Neither PANDA nor its expert identify or analyze any algorithms in the specification for performing the claimed functions. Br. 20–21.

2. Terms 34, 35 & 37: Synchronization Terms

The synchronization terms are each directed to the ambiguous and undefined concepts of mitigating or significantly reducing "client-by-client latency" or "synchronization issues," or sharing information in a "synchronized manner." The specification fails to inform a POSA about the scope of such terms with reasonable certainty, rendering the claims indefinite. *Nautilus, Inc.* v. *Biosig Instruments*, 572 U.S. 898, 901 (2014). The Asserted Patents fail to provide any objective guidance regarding (1) how to measure client-by-client latency, (2) what degree of

²⁹ PANDA also relies on its expert's conclusory assertion that a POSA "would understand that the specification discloses sufficient structure" after "reviewing the entirety of the specification." Shamos ¶96. PANDA's expert does not analyze any particular part of the specification, nor identify specific algorithms or steps allegedly disclosed therein. Such "conclusory, unsupported assertions ... are entirely unhelpful to a court." *Cypress Lake*, 382 F. Supp. 3d at 597.

mitigation or reduction of client-by-client latency satisfies the claims, and (3) how to determine or measure synchronization. Unable to identify any objective guidance in the intrinsic record, PANDA resorts to extrinsic evidence that similarly fails to resolve the lack of objective criteria.

a. The Intrinsic Record Provides No Objective Guidance for Measuring Client-by-Client Latency

Where a claim requires a measurement, the intrinsic record must "convey with reasonable certainty the measure" to be used. *Teva Pharms. v. Sandoz, Inc.*, 789 F.3d 1335–45 (Fed. Cir. 2015) (claims reciting "molecular weight" indefinite as intrinsic record did not specify which of three different incompatible measurements to use); *see also Dow Chem. v. Nova Chems.*, 803 F.3d 620, 633–35 (Fed. Cir. 2015). Here, the specification fails to provide any measurement for the latency of individual clients, and compounds the error by failing to provide any guidance as to how "client-by-client latency" should be measured.

First, the intrinsic record fails to specify how latency of individual clients should be measured. Neither the claims nor specification define latency in the context of transmitting "online gaming information" or "digital content" relating to "event information" to VCDs, as the claims require. The Asserted Patents only define "latency" in the context of video, namely as "the delay between a first user generating and receiving a "live video stream." '697, 2:27–31. The remaining examples only relate to video and provide incompatible measurements of latency. Id., 24:64–25:2 ("broadcaster-to-viewer delay time"), 25:35–45 ("client[-]side-induced end-to-end digital content latency"), 25:59–65 (latency between "RTMP media server(s)" and "RMTP [sic] CDN servers"), 26:1–3 (between "WebRTC media server(s)" and the RTMP CDN), 26:3–9 (resulting from copying and transcoding live streams within the RTMP CDN), 26:11–15 (resulting from media servers and RTMP CDN), 26:16–18 ("client-introduced digital content latency"), 45:1–4 ("between a given broadcaster's live stream and the viewer client devices"

introduced by HLS server architecture), 45:6 ("overall average latency for all viewers"), 45:10–11 ("introduced by the HLS segmenting process"), 45:12–13 ("introduced by the transfer of files through the HLS server architecture"). A POSA attempting to measure latency and determine whether the requisite mitigation occurred cannot do so from the intrinsic record, much less make an "informed and confident choice" among the competing examples. *Interval Licensing v. AOL, Inc.*, 766 F.3d 1364, 1371 (Fed. Cir. 2014).

Second, even if one could identify a specific measure of latency for an individual client, the intrinsic record fails to explain how to measure "client-by-client latency." The specification does not define the term, and neither PANDA nor its expert contend it is a term of art. Without any objective guidance, the public is left to choose among numerous and conflicting options for characterizing a set of latency values for multiple clients, such as the maximum, median, mean, range, or standard deviation of a set of undefined latencies across clients. A POSA would "not be reasonably certain in light of the entire record as to which [measure] was intended," rendering the claims indefinite. Teva Pharms., 789 F.3d at 1345.

PANDA argues that the "concept[]" of latency would be understood in the art, citing dictionary definitions. Br. 22. While a POSA may understand the general concept of latency, such vague knowledge wholly fails to address how to measure individual and client-by-client latency as claimed. And PANDA cites no evidence in the intrinsic record that clarifies what method of measuring latency falls within the scope of the claims, even though the specification offers at least eleven different options. '697, 24:64–26:18, 45:1–13.

PANDA also argues client-by-client latency is measured "between the first client device and second client device to render the first event information." Br. 22. As an initial matter, this language appears only in claims 1 and 8 of the '088, and does not address the '218. Even so, that

additional language does not clarify whether latency is measured from the time the event information is transmitted to the time each device receives or renders the event information, or from the time the first device receives or renders the event information to the time the second device receives or renders the event information (among other possibilities) or how to account for more than two clients. Accordingly, the term "client-by-client latency" renders the synchronization terms indefinite.

b. The Intrinsic Record Provides No Objective Guidance for Mitigating or Significantly Reducing Client-by-Client Latency

The limitation that client-by-client latency be "mitigated or significantly reduced" is a term of degree, which "fails to provide sufficient notice of its scope if it depends on the unpredictable vagaries of any one person's opinion." *Intellectual Ventures I LLC v. T Mobile USA*, No. 17-cv-577-JRG, 2018 WL 5809270, at *1–14 (E.D. Tex. Nov. 6, 2018) ("*IV*"); *see also CA, Inc. v. Netflix, Inc.*, No. 21-cv-80-JRG-RSP, 2021 WL 5323413, at *14–17 (E.D. Tex. Nov. 16, 2021). Because the intrinsic record offers no guidance as to the degree of mitigation or reduction necessary, the synchronization terms are indefinite.

First, even if a POSA were to choose one of the innumerable metrics for measuring client-by-client latency, as explained above, no objective guidance is found in the intrinsic record as to what constitutes sufficient mitigation or a significant reduction. The specification provides only a single numerical example of "significantly reduced HLS latency of approximately 8 to 12 seconds, as compared to a conventional HLS latency on the order of 100 seconds." '697, 40:19–22. HLS latency, however, is the "buffer time" for a live video stream, *id.* 35:14–36:6, not latency related to transmission of event information, as the claims require. The specification provides other non-informative latency ranges, all in the context of delivering live video streams, ranging from 150 milliseconds to 8–12 seconds. *Id.* 24:65–25:2, 26:9, 26:15, 26:17, 28:40,

40:20. But such disclosures do not inform a POSA of the amount of latency reduction required to bring a system within the scope of the claims, even if they related to event information and not video, because the exemplary values are stated in absolute rather than relative terms. Accordingly, PANDA's examples would not inform a POSA of the relative amount of reduction in client-by-client latency that satisfies the claims.

Further, as the Asserted Patents make clear, latency depends on a variety of factors, so a reduction in latency that is significant in one context might not be in another (*e.g.*, greater latency mitigation may be required for fast-moving sports like basketball, whereas more latency could be acceptable for a baseball game). *U.S. Well Servs. v. Halliburton Co.*, No. 21-cv-367-ADA, 2022 WL 819548, at *6 (W.D. Tex. Jan. 17, 2022) ("high pressure" indefinite where "what might be considered 'high pressure' varies across changing circumstances"). The Asserted Patents provide no meaningful guidance and, as a result, whether a particular system mitigates or significantly reduces client-by-client latency would be purely "subjective," rendering these terms indefinite. *IV*, 2018 WL 5809270, at *13; *CA*, 2021 WL 5323413, at *16.

Second, even if a POSA could identify a number that qualified as mitigating or significantly reducing client-by-client latency, the Asserted Patents provide no baseline against which to measure that reduction for any particular system. In essence, the claims require a POSA to compare a particular system under consideration with a hypothetical system in which client-by-client latency is not mitigated or significantly reduced. With "no point of comparison for skilled artisans to determine an objective boundary of" mitigated or reduced client-by-client latency, there is no way to determine whether a particular system meets these limitations. **Berkheimer v. HP Inc.**, 881 F.3d 1360, 1364 (Fed. Cir. 2018) ("exhibits minimal redundancy" indefinite where intrinsic record provided no "objective baseline" for comparison). Thus, the

Asserted Patents do not enable the public to understand when a given system has sufficiently mitigated or reduced client-by-client latency to fall within the scope of the claims.

PANDA contends a POSA would understand the synchronization terms to require only that "the same information" is provided to each VCD "at *around* the same time." Br. 22. That, however, does not provide any clarity because whether two viewers receive information "at around the same time" is equally as subjective as the claim language itself. And, as explained above, the synchronization terms are unclear as to what measure of latency is required.

PANDA also argues the synchronization terms are not terms of degree. Br. 24. But the claims require "mitigat[ing]" or "significantly reduc[ing]" client-by-client latency. The specification recognizes that latency values fall within ranges, *see* '697, 24:65–25:2, 26:9, 26:15, 26:17, 28:40, 40:20, and there can be no reasonable dispute that only certain values qualify as mitigated or significantly reduced. The synchronization terms thus fall squarely among terms found to be terms of degree. *Berkheimer*, 881 F.3d at 1363 ("minimal redundancy"); *IV*, 2018 WL 5809270, at *14 ("optimize end-user quality of service"); *CA*, 2021 WL 5323413, at *16–17 ("minimiz[es/ing]" a time and "maximizing" various rates).

In the alternative, PANDA argues the specification nonetheless provides "objective boundaries" in the form of "relative and absolute *exemplary* values" of latency. Br. 24. As explained above, however, each latency range described in the specification relates to *video*, not event information, and the only "relative" latency reduction disclosed compares "significantly reduced" HLS latency of 8–12 seconds with "conventional" HLS latency of approximately 100 seconds. Those disclosures do not allow a POSA to confidently determine what client-by-client latency reductions fall within the claims and which do not, rendering these terms indefinite.

c. The Intrinsic Record Provides No Objective Guidance for Determining Whether Information Is Synchronized

The uncertainty is further compounded by the requirement that information transmitted to devices is "synchronized," because the intrinsic record does not provide sufficient clarity as to how synchronization is determined or measured. The common specification describes two different kinds of synchronization: each viewer receiving the same information at the same time, and synchronizing events with video. '218, 4:66–5:3, 28:17–22, 25:6–7. Because a POSA would not be able to determine which synchronization the claims require, the claims are indefinite. *Pac. Coast Bldg. Prods. v. Certainteed Gypsum, Inc.*, 816 F. App'x 454, 455 (Fed. Cir. 2020).

Unable to point to any disclosure or useful guidance in the Asserted Patents, PANDA relies on its expert's bare assertion that a POSA "would be apprised that the scope of the synchronization of digital content is to share the *same* information to all viewer client devices at *around the same time*." Shamos ¶50. This testimony alone illustrates why the term is indefinite: the qualification "around the same time" is purely subjective and adds no clarity to the disputed terms. Further, PANDA's conclusory expert testimony lacks any supporting evidence or elaboration and cannot supply the objective boundary that is missing from the claims. *See Phillips*, 415 F.3d, 1318; *Horizon Pharma*, 2021 WL 48428 at *3–4. There is simply no objective approach for determining what synchronization and/or latency reduction suffices to meet the claims. These limitations are therefore indefinite. *Berkheimer*, 881 F.3d, 1364.

d. PANDA's Remaining Arguments Lack Merit

PANDA mistakenly argues that these terms are definite because the Examiner issued a notice of allowance, even though the Examiner provides no analysis of the terms. Br. 25 (citing Br. Ex. 12, 13–15; Br. Ex. 10, 2–3); but see Imperium (IP) Holdings v. Apple, Inc., 920 F. Supp. 2d 747, 752 (E.D. Tex. 2013) (rejecting definiteness argument that "the absence of such an objection during prosecution should preclude a finding of indefiniteness during litigation."); see also Uni-Systems v. U.S. Tennis Assoc. Nat. Tennis Center, 2020 WL 3960841 (E.D.N.Y. Jul. 13,

2020) ("[i]f Plaintiff were correct, no approved patent term would be found indefinite.").³⁰

3. Term 32: "germane"

Similar to the synchronization terms described above, "germane" is a subjective term that lacks any objective standard in the intrinsic record, and should be held indefinite. *See Datamize v. Plumtree Software*, 417 F.3d 1342, 1351 (Fed. Cir. 2005). Though PANDA claims a POSA would have no issue determining what information is germane to an event, Br. 27–28, its cited examples show that a POSA would not be able to confidently determine whether other event information (*e.g.*, concessions available at a stadium or celebrities in attendance) falls within the scope of the claims. Because what is germane "depends on the unpredictable vagaries of any one person's opinion," the term should be held indefinite. *IV*, 2018 WL 5809270, at *10.

4. Terms 38–40: Terms with Typographical Errors

The parties agree these terms as written contain errors. Br. 30. The Court should refuse to rewrite the claims because the corrections are not obvious on the face of the patent. *In re Taasera Licensing, Pat. Litig.*, 2023 WL 8628323, at *14 (E.D. Tex. Dec. 13, 2023). PANDA asks the Court to correct its errors by transforming the terms "first client device" to "second client device" and "first media server" to "second media server." But PANDA's requested fixes are subject to reasonable debate, and it is not the Court's function to "rewrite claims to preserve their validity." *Allen Eng'g v. Bartell Indus.*, 299 F.3d 1336, 1349 (Fed. Cir. 2002); MPEP § 1485.

IV. CONCLUSION

The Court should adopt Defendants' constructions.

³⁰ PANDA's citation to *Sonix Tech. Co. v. Publications Int'l* is inapposite. There, the Federal Circuit had the benefit of multiple reexamination proceedings. 844 F.3d 1370, 1380 (Fed. Cir. 2017). Here, the Examiner did not substantively address either term, which should be given no weight. *Apex Inc. v. Raritan Comps.*, 325 F.3d 1364, 1375 (Fed. Cir. 2003).

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CERTIFICATE OF SERVICE

The undersigned herby certifies that all counsel of record who are deemed to have consented to electronic service are being served with a copy of this document via the Court's CM/ECF system on April 4, 2025.

/s/ Jeanne M. Heffernan